REMARKS

Applicants would like to thank the Examiner for the thorough review of the present application. As discussed in detail below, the present claims in the present application include recitations that patentably distinguish the claimed invention over the cited references, taken individually or in combination. Based upon the amendments and the following remarks, Applicants respectfully request reconsideration of the present application and allowance of the pending claims.

The Invention

The present invention relates generally to a network gateway device and, more particularly, to methods and systems for redirecting destination access requests in a network that implements a gateway device.

According to one embodiment of the invention, a method is defined for redirecting original destination address requests to a redirected destination address. A gateway device, which resides between multiple computers/hosts and networks, such as the Internet, (i.e., sits in the traffic flow between the user and the original requested server) has the unique capability to receive and assess *all* original destination address access requests that are sent from the computer/hosts. The gateway device determines which, if any, of the original destination address access requests require redirection. This determination of whether a destination address access request will require redirection is accomplished by accessing user profiles that are stored in gateway device associated databases, such as AAA databases. If redirection of the destination address access request is required, then the original destination address is placed in storage and the original destination address access request is modified with the destination address of a redirection server. Once modified, the request is communicated to the redirect server. The redirect server responds to the request with a browser redirect message that reassigns the modified request with an administrator-specified, redirected destination address. Before this

message is communicated back to the originating computer/host, it is intercepted by the gateway device, which modifies the source address in the message by replacing the redirect server address with the original destination address. The modified browser redirect message is then communicated to the originating computer/host and the computer/host is automatically redirected to the redirected destination address.

By implementing redirection at the gateway device, the redirection process is not limited to any one network site or web server that may employ a redirection routine. Instead, the gateway device provides the capability to assess and determine redirection requirements for *all* destination address requests that are sent by the computer/host. In addition, since the gateway device intercepts the redirect message and replaces the redirect server source address with the original destination address, the gateway device is able to spoof the computer/host in to believing that the reply is coming from their requested server.

In another embodiment of the invention a system for redirecting original destination address access requests to redirected destination addresses includes at least one, typically multiple, computer(s) that initiates original destination address requests. Paramount to the system is a gateway device that is in network communication with the computer. The gateway receives *all* of the original destination address requests from the computer and determines if redirection of any of the original destination address requests is required. If redirection is required, the gateway device stores the original destination address request and modifies the original destination address request with a redirection server destination address. The system also includes a redirection server that is in network communication with the gateway device and receives the modified request from the gateway device and responds with a browser redirect message that reassigns the request to an administrator-specified, redirect destination address. The gateway device also intercepts the browser redirect message and modifies the response with the stored original destination address before forwarding the browser redirect message to the computer. Upon receipt by the computer of the modified browser redirect message, the computer is automatically redirected to the redirected destination address.

Claim Rejections

35 U.S.C. § 103 Rejections

Claims 1-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over by United States Patent No. 6,317,790 to Bowker et al. (the Bowker '790) patent. According to the Examiner the Bowker patent, in combination with that which obvious to one skilled in the art, teaches all of the elements of Claims 1-16.

Claims 1-16 have been cancelled from the present application. Newly added claim 24 is a method claim directed toward a process for redirecting original destination address access requests to a redirected destination address. While claim 24 embodies the spirit of previous method claim 1, the applicant believes that the changes were significant so as to warrant a new claim as opposed to an amendment to claim 1. In addition, while claim 29 embodies the spirit of previous system claim 10, the applicant believes that the changes were significant so as to warrant a new claim as opposed to an amendment to Claim 10.

The Bowker '790 Patent Does Not Teach The Use Of A Gateway Device That Is Capable Of Receiving *All* Destination Address Requests That Are Sent By A Computer/Host And Determining Which Requests Require Redirection

Claim 24 requires that a gateway device implement various steps in the process redirection. Claim 29 requires, as an element, a gateway device that implements the redirection process.

The Bowker '790 provides no teaching of a gateway device that resides in the stream of information between the computer and the network. On the contrary, the Bowker '790 patent teaches an interrupt mechanism, Figure 4, element 410 that is located on the server side and is in direct communication with the web server 406. As such the system in the Bowker '790 patent is limited to redirecting access requests for specific web server 406. If the user sends a request for

any other web server, other than web server 406, redirection of the request is not possible unless the alternate web servers implement the interruption mechanism. Thus, the Bowker '790 patent does not teach or suggest a system that is capable of assessing *all* destination address access requests that are sent by the computer/host or user and determining, which, if any, of the requests necessitate redirection.

As noted above, Claims 24 and 29 require implementation of a gateway device that receives all destination address access requests sent by a computer/host and can assess all of these requests to determine which of the requests require redirection. As such, the present invention is not limited to redirection of a user's request to access a specific web server. In the present invention redirection may occur for any web server access request initiated by the user.

Therefore, the Bowker '079 patent does not teach or suggest the required elements of Claims 24 and 29, specifically, a gateway device that receives all destination address requests sent from a computer and assesses all of the requests to determine if redirection is required.

The Bowker '079 Patent Does Not Teach a Gateway Device That Intercepts the Browser Redirect Message And Replaces the Source Address With the Stored Original Destination Address

Claims 24 and 29 require that the gateway device intercept the browser redirect message prior to forwarding such to the computer/host. The claims require that the interception take place for the purpose of modifying the source address (i.e., the redirect server address) with the stored original destination address. By intercepting the redirect message and modifying it with the stored original address the computer/host is "spoofed" into believing that the redirect page that it sent to is the requested original destination address. This "spoofing" operation, also referred to as "browser hijacking", may be instrumental in insuring that the redirection process occurs because as long as the computer believes that the redirected address is the original address it will be difficult for the computer to circumvent the redirection with any type of blocking mechanism being implemented on the computer/host.

The Bowker' 790 patent provides no teaching that the user is "spoofed" into believing that the unrequested information that it receives is the information that it had requested. No teaching is provided that the source address connected with the unrequested information is replaced with the requested information address prior to submission to the user. As such, the user's computer is knowledgeable regarding the redirection and may attempt to block the redirection by implementing a suitable blocking mechanism.

Therefore, the Bowker '079 patent does not teach or suggest the required elements of Claims 24 and 29, specifically, an interception process that occurs prior to the computer/host receiving the browser redirect message and serves the purpose of replacing the source address (i.e., the redirect server address) with the original destination address. This novel process is highly advantageous in that it "spoofs" the computer into believing that the redirect address is the destination address that the computer had originally requested.

Additional Claims

As noted above, newly presented claims 24 - 34 have been presented to more clearly define and narrow the scope of the present invention. Independent Claims 24 and 29 require a gateway device that receives all destination address requests being sent from associated computers/hosts and assesses all of the requests in terms of redirect requirements. In addition, Claims 24 - 34 require that the redirect messages that are sent to the computer/host be modified at the gateway device with the original destination address so that the computer/host believes that the redirect address is the original requested destination address.

Conclusion

In view of the proposed amended claims and the remarks submitted above, it is respectfully submitted that the present claims are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present invention.

In re: Short et al.
Appl. No.: 09/458,569
Filed: December 08, 1999
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Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.
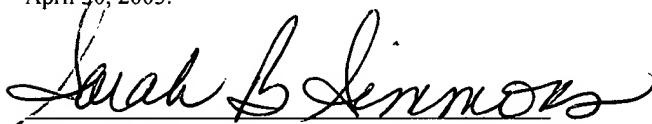
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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 30, 2003.

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